



Capital Program Committee FY 19 Year End Capital Spending Report

October 24th 2019

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FY19 Year End Capital Spending Report – Budget vs Actuals

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*MassDOT achieved **97%** of its annual investment targets as outlined in the FY19 CIP. This Year End Capital Spending Report illustrates how Capital resources allows MassDOT to deliver a safe and reliable transportation system and improve conditions of existing or newly acquired assets while enhancing economic development and quality of life for the residents and businesses of the Commonwealth.*

MassDOT Capital Program Summary Overview

FY19 MassDOT Divisions Key Spending Highlights 97% (excludes All MBTA funds)

The FY19 approved Capital Budget for MassDOT was \$1.807B and the total capital spend was \$1.762B achieving 97% of its approved targets.

All divisions, except for the South Coast Rail component of the Rail Division, were able to spend 88-108% of their respective capital plan which reflects the continued commitment of MassDOT to undertake and complete transportation projects that are of the highest benefit to the Commonwealth.

Due to the late notice from ANF to spend above and beyond the FY19 targets, the Highway Division was able to deliver maintenance needs (bridges, drainage, facilities, lighting, pavement, safety systems and traffic sign/signal upgrades) to state owned infrastructure based on priorities within the District Offices.

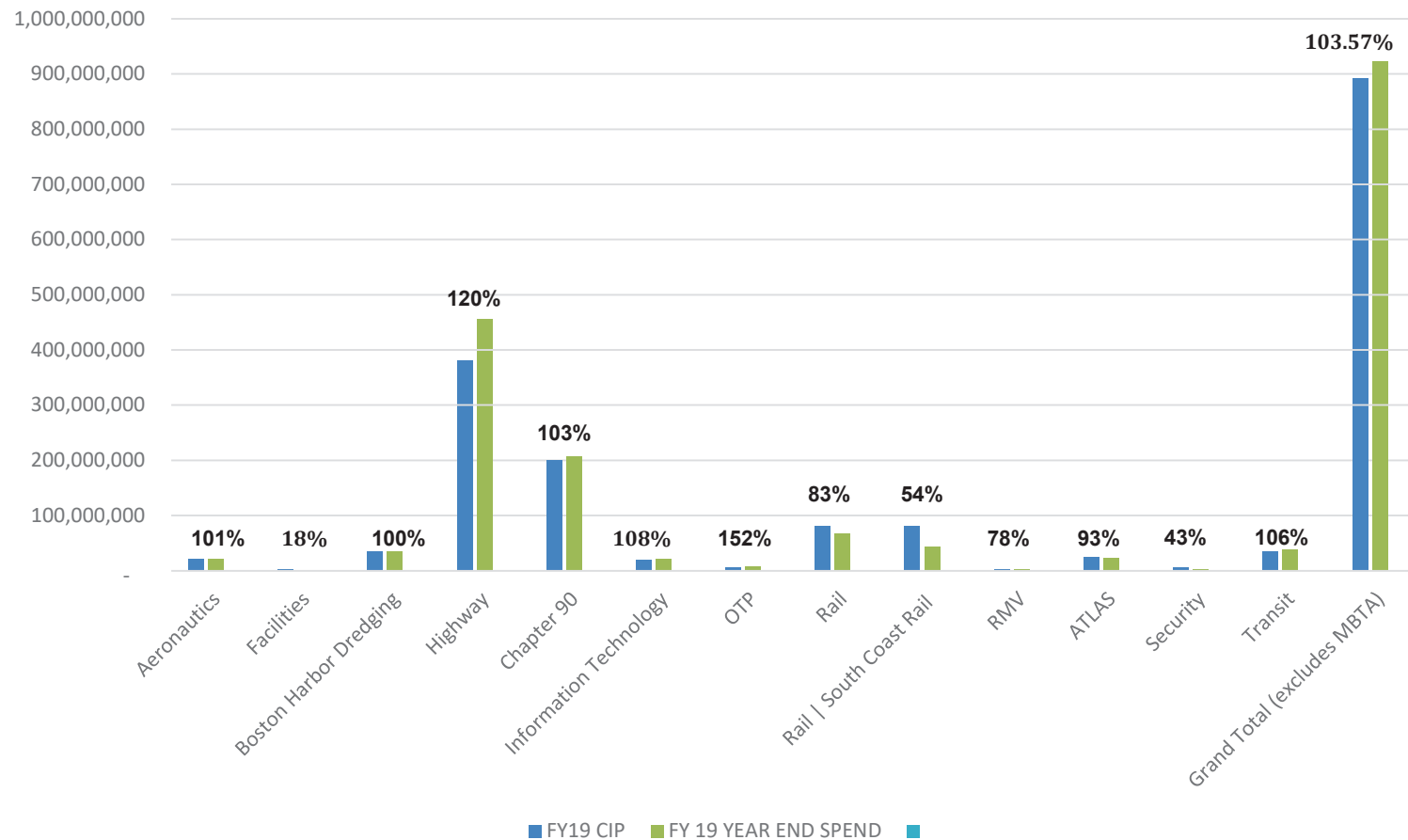
The South Coast Rail project, however, underspent against its CIP targets for various reasons including stalled contract negotiations on the purchase of coaches (which is now underway); the challenges of land takings as it relates to acquisition costs and environmental remediation issues, as well as slower than projected spending for materials and culvert work.

MASSDOT DIVISIONS	FY19 CIP	FY19 Actual Expenditures	Budget vs Actual
Aeronautics	61,221,317	54,542,769	89%
Highway	1,173,779,532	1,208,767,002	103%
Chapter 90	200,000,000	211,372,588	106%
OTP	82,094,470	71,566,885	87%
Information Technology	19,400,000	20,884,758	108%
Rail	96,644,416	84,833,791	88%
Rail South Coast Rail	107,011,000	42,061,418	39%
Transit	40,098,232	42,631,762	106%
RMV	27,600,000	25,877,196	94%
TOTAL MASSDOT	1,807,848,967	1,762,538,169	97%

FY19 MassDOT Capital Program Year End Spending Report

FY19 Bond Cap at 103.57% exceeds FY19 Target by \$32M due to a year end request from ANF to continue spending above the cap

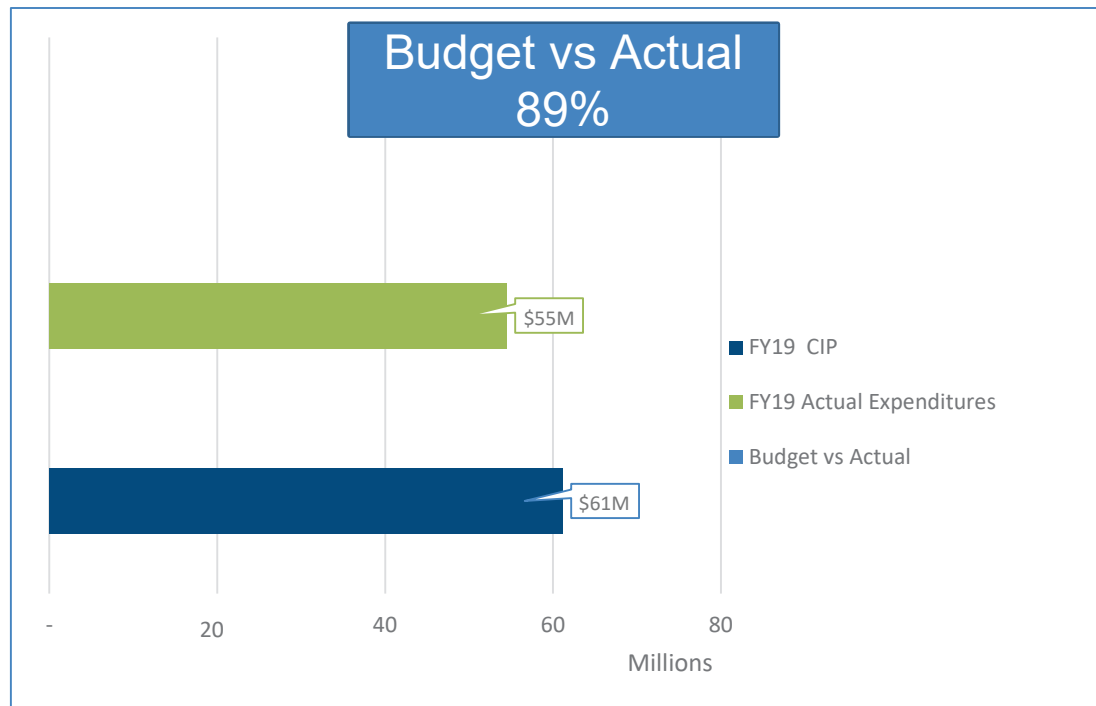
BOND CAP EXPENDITURES VS CIP TARGETS



FY19 MassDOT Capital Program Year End Spending Report

Aeronautics Division – Uses capital investments to promote aviation and enhance airport safety and economic development across the Commonwealth

FY19 Aeronautics



FY19 Accomplishments for Aeronautics Division - 89% of Plan (including FAA Grants)

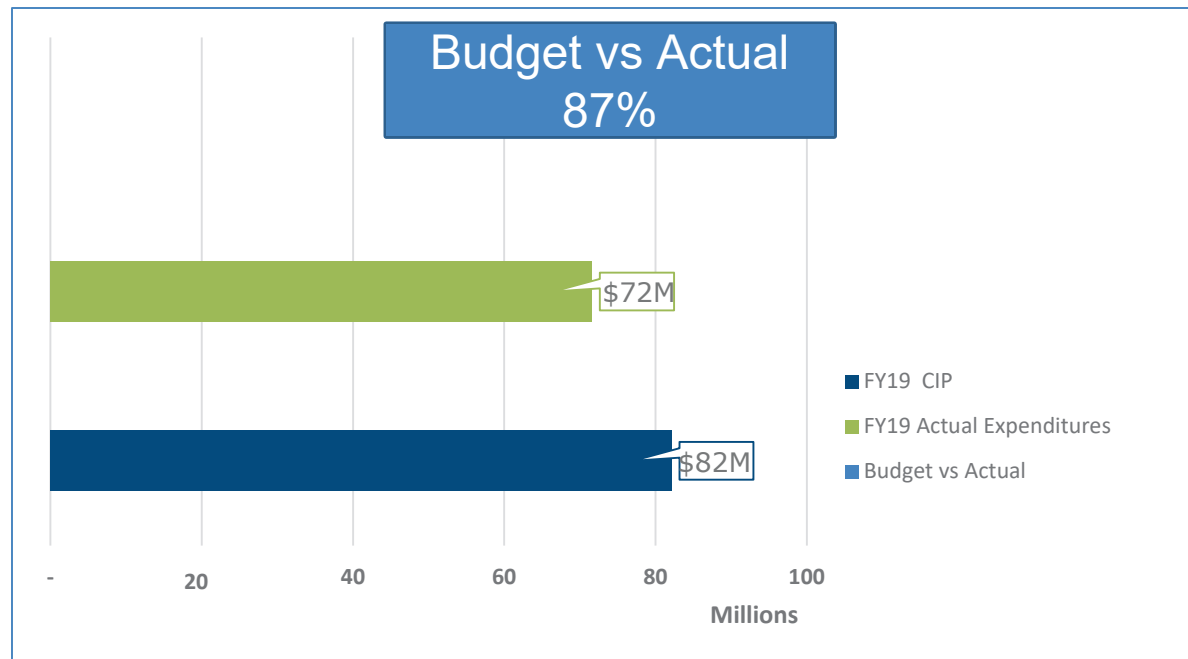
Aeronautics accomplishments include airport safety, customer service, economic development, and environmental stewardship:

- In FY19, the Aeronautics Division provided funding and technical assistance for airport vegetation maintenance projects at 4 public use airports (Marshfield, New Bedford, Norwood, and Westfield-Barnes) as part of the Division's Statewide Airport Vegetation Management Program. These projects assisted airports in maintaining runway approaches, and other areas, to prevent obstructions to air navigation and maintain safe conditions.
 - Reconstructed Runway 6-24 at Martha's Vineyard Airport. Project included the removal of existing asphalt pavement and installation of approximately 22,000 tons of bituminous concrete pavement.
 - Reconstructed a portion of the primary runway (8-26) and the secondary runway (14-32) at Pittsfield Municipal Airport to improve the pavement condition and enhance the safety of flight operations. Both runways were completed simultaneously minimizing the time that the airport would be closed.
 - Reconstructed Taxiways A, C and D at Provincetown Municipal Airport and installed approximately 12,000 feet of security fencing to eliminate hazards to air navigation.
 - Taxiways at Plymouth Municipal Airport (TW D extension) and Norwood Memorial Airport (a portion of TW A) were reconstructed to eliminate safety concerns on takeoffs and landings at both airports.
 - Completed 2 Airport Administration Buildings at Plymouth Municipal Airport and Harriman-and-West Airport in North Adams. Also, began construction of Administrative Offices at Norwood Memorial Airport.
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FY19 MassDOT Capital Program Year End Spending Report

Planning & Enterprise Services Division – continues to provide services in support of the mission and goals of MassDOT to promote safety and reliability for all modes of travel across the state

FY19 Planning & Enterprise Services



FY19 MassDOT Capital Program Year End Spending Report

Planning and Enterprise Accomplishments - continues its work on studies highlighted in the CIP related to MPOs, Multi Modal Planning, GIS services, Sustainable Transportation and Transit Planning

- **Capital planning/Metropolitan Planning Organization (MPO) Activities**

- 2020-2024 CIP Update and State Transportation Improvement Program
- Administered federal programs such as Safe Routes to School (SRTS) and the Congestion Mitigation Air Quality Improvement Program
- Oversaw the metropolitan planning processes with our MPO partners delivering thirteen Transportation Improvement Programs and the Statewide Transportation
- Improvement Plan with long-range regional transportation plans completed by all the MPOs

- **GIS services**

- Developed “municipal portal” for Complete Streets, Municipal Bridge, and Chapter 90 to interface with Project Info
- Created new ESRI storyboards for CIP, Bicycle and Pedestrian Plans
- Created new comment tool for CIP

- **Multimodal planning**

- Finalized the Massachusetts Bicycle Transportation Plan and the Massachusetts Pedestrian Transportation Plan
- Continued the Cape Cod Canal Transportation Study and finished the I-91 Viaduct Transportation Study
- Initiated East-West Rail Study and the I-90 Interchange (Blandford) Study

- **Sustainable transportation**

- Continued the Climate Adaptation Vulnerability Assessment
- Worked with Exec. Office of Energy and Environmental Affairs and Executive Office of Administration and Finance on development of Transportation Climate Initiatives and policies
- Advanced Congestion Study
- Supported completion of the Future of Transportation Commission Report
- Applied in March 2019 for NOFO FRA Grant (\$43 million) for Tower 1 of South Station

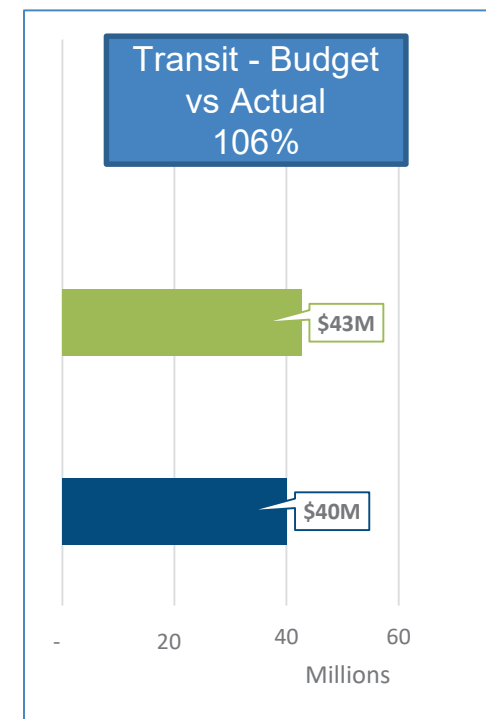
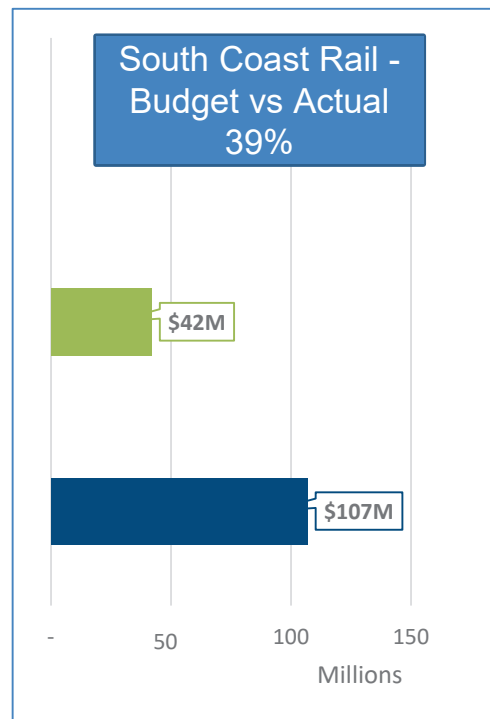
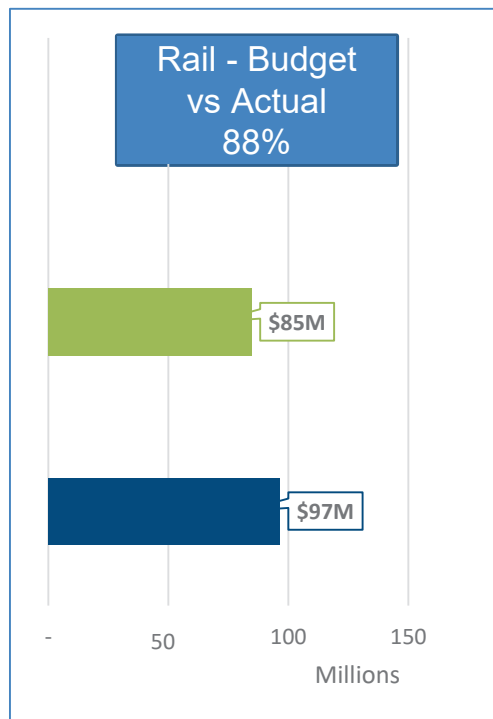
- **Transit planning**

- Finalized Focus40, the MBTA's long-range capital planning vision
- Initiated Bus Network Redesign and Lynn Transit Action Plan Studies
- Commenced System-wide Parking and Alewife Garage market demand studies
- Continued Battery Electric Bus Study and North Cambridge Pilot project

FY19 MassDOT Capital Program Year End Spending Report

Rail and Transit Division – invests capital resources into the Commonwealth’s 15 regional Transit Authorities, and oversees MassDOT’s freight and passenger Rail Program

FY19 Rail and Transit Division



FY19 Capital Spending Accomplishments – Rail

State of Good Repair Projects

- Knowledge Corridor: Installed 30,000 ties, surfaced 36 miles of track, Installed 1,320 Bridge timbers, Replaced 2 large culverts and 3 culvert pipes; Structural steel repairs on 6 bridges and slope stabilization at 2 locations
- Berkshire Line: Replace 2 timber bridges, delivered 30 miles of Continuous Welded Rail (CWR) and public grade crossings which eliminates vibration and noise along the rail corridor
- Adams Branch: Continued vegetation management and slope stabilization project close out
- Ware River Branch: Three bridges rehabilitated
- Middleboro Subdivision: Distressed 7.1 miles of rail
- Cohasset Narrows Bridge (Wareham & Bourne): Five-span superstructure replaced
- Cotley River Bridge (Taunton): Replaced with precast concrete culvert

Modernization

- Foxboro Freight Siding: 4,600 ft. of new track, Crash wall added to protect Rte. 1 overhead bridge and New second-track bridge at MP 5.19
 - Hyannis Yard CapeFlyer Improvements: Collaborated with CCRTA on yard improvements
 - Installed 4.1 miles of Continuous Welded Rail on the Framingham Secondary
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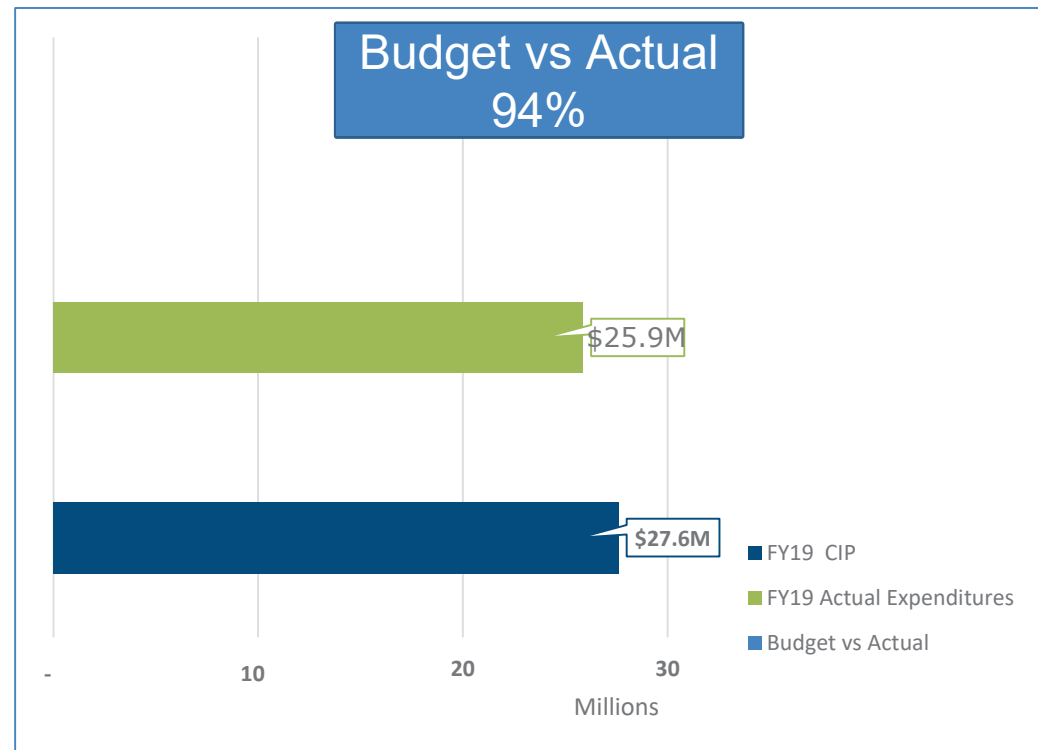
FY19 MassDOT Capital Program Year End Spending Report

FY19 Capital Spending Accomplishments Transit – 106% of Plan

- Procured 23 Replacement Buses (>30ft.) for Regional Transit Authorities which bring buses into a state of good repair, ensure safety, and provide commuters with modern amenities using combined state and federal funds. This aligns with Federal safety requirements.
 - Completion of the Pioneer Valley Transit Authority (PVTA) Cottage Street Maintenance Facility which replaces an old structure with state-of-the-art facility to service, maintain and house the vehicles, \$9.8M in SFY19, total investment \$60M.
 - 144 vehicles delivered through the Community Transit Grant Program (CTGP) enabling greater mobility and connectivity for seniors and disabled persons across the Commonwealth.
 - MassDOT continued to support the electrification of Martha's Vineyard Transit Authority.
 - Completion of Newburyport Intermodal (Garage) \$2.5M in SFY19, total project \$5.0M.
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FY19 RMV – ATLAS Capital Spending Report

FY19 RMV-ATLAS



FY19 Capital Spending Accomplishments for RMV – ATLAS included investments in greater efficiencies, process improvements and customer service enhancements

ATLAS

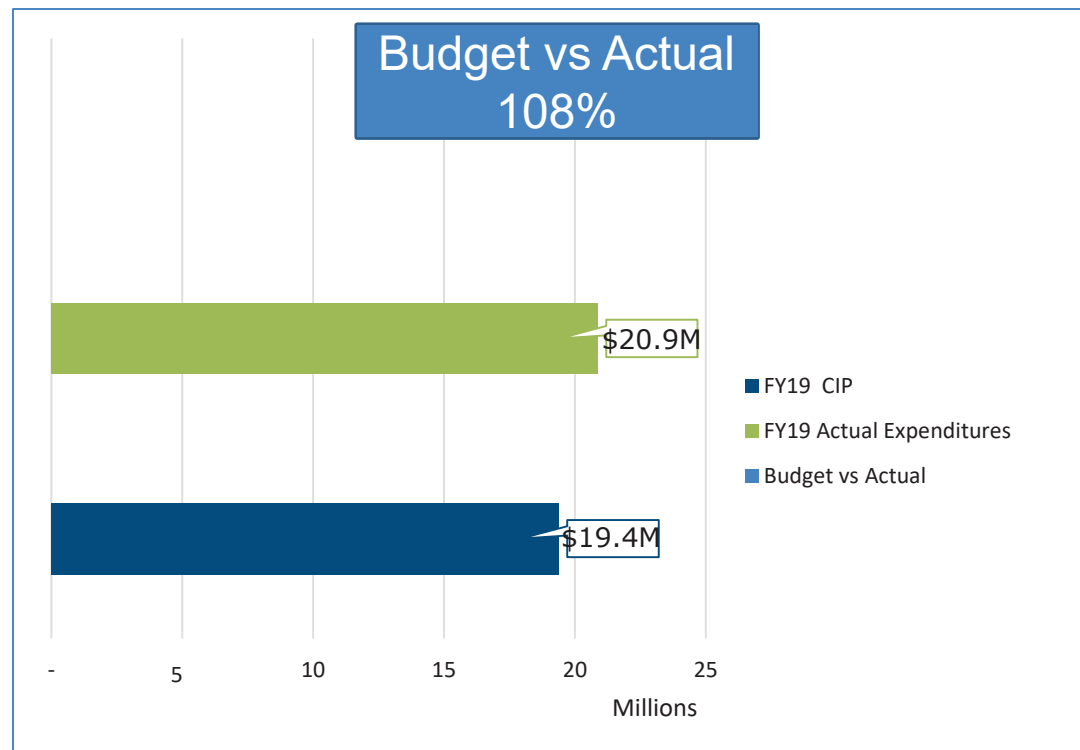
- FY19 Capital Investments in ATLAS will allow the RMV to become a more customer-centric agency and comply with federal and state mandates.
- ATLAS, like ALARS, is used by the RMV, law enforcement, other government agencies and the insurance industry, among many others, to perform essential functions, including processing millions of transactions daily and collecting more than \$1 billion in revenue.
- The ATLAS program has two major phases:
 - Release 1 Driver Services implemented on March 26, 2018
 - Release 2- Vehicle Services will be implemented on November 12, 2019.
- Driver Services was successfully deployed in FY19 and significant progress was made on Vehicle Services to ensure a successful FY20 implementation.

RMV

- RMV is transforming its business processes and replacing its technology to deliver exceptional customer service for residents and businesses across the Commonwealth.

FY18 IT Capital Spending Report

FY19 IT



FY19 MassDOT Capital Program Year End Spending Report

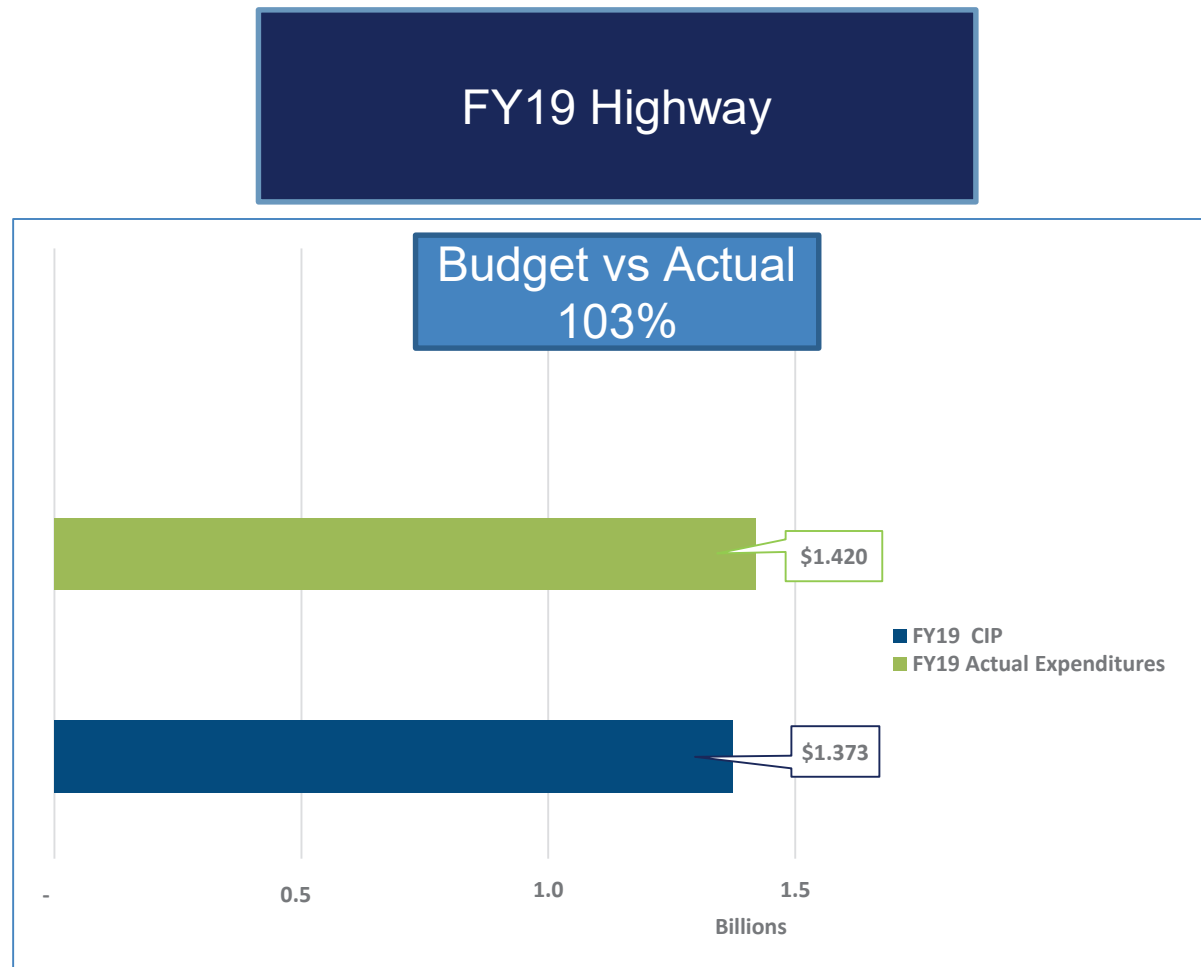
FY19 Capital Spending Accomplishments for IT – continues to focus on efficiencies in how we do business by upgrading our digital experience and technology systems to ensure workforce productivity

Completed Projects

- In FY19 we implemented policies/best practices for cybersecurity vulnerability, strengthened access management and **implemented EOTSS directives**
- We replaced the core switches that manage our MassDOT wide area network (\$1.1M)
- The aging **Data Centers at 10PP were consolidated and modernized**
- Our ongoing state-of-good-repair program saw 650 desktop computers updated or replaced
- All of the end-of-life **CAD personal computers used by the Highway Department were replaced with new equipment and an improved distribution system for AUTOCAD software** (\$770K)
- In FY19 we implemented a new online **State Highway Permitting** system (SHAPS) that *automates* a manual process (\$1.1M)
- We implemented a new **interactive voice response system** (IVR) for the RMV, Highway, IT and HR Contact Centers, (\$900K)
- We modernized the **District Contracts Management** system (DCD) for Highway to allow field staff to make decisions on the job (\$1.6M)
- We streamlined the **signature and approval workflows for construction contract transactions** (\$240K)
- We continued to support Aeronautics **DRONE program** by subsidizing the development of data management processes and software (\$720K)
- We delivered Phases 1 and 2 of the MassDOT employee **HR Portal** for Human Resources (\$635K)

FY19 MassDOT Capital Program Year End Spending Report

Highway Division – The Highway Division designs, constructs and maintains the state’s highways, bridges and tunnels and its budget makes up 76% of the annual investments to MassDOT (including Chapter 90)

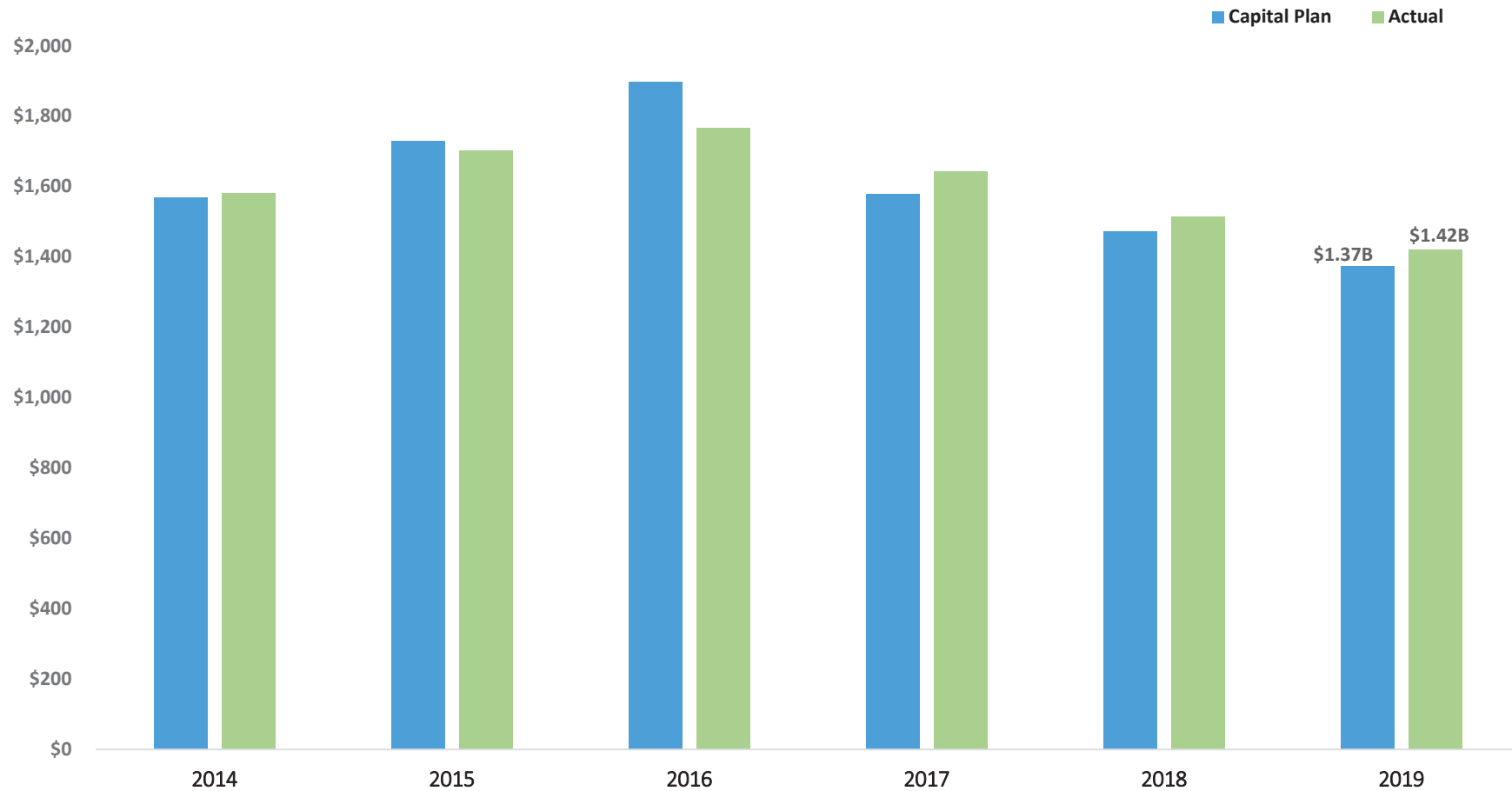


FY19 Highway CIP vs Actuals – Outperformed its budget targets (103%)

FY19 HIGHWAY CIP vs ACTUALS			
FUNDING SOURCE	FY19 CIP	FY19 ACTUALS	CIP vs ACTUALS %
Bond Cap	379,669,501	455,362,494	120%
Chapter 90	200,000,000	211,372,588	106%
ABP	75,721,272	82,312,389	109%
CARM Gaming Misc.	34,025,075	43,930,281	129%
FHWA Reimbursements	517,976,993	480,530,940	93%
REP	11,959,270	20,683,025	173%
TOBIN	22,330,334	19,773,020	89%
MHS	82,703,327	68,592,310	83%
WESTERN TURNPIKE	49,393,799	37,582,543	76%
Totals	1,373,779,571	1,420,139,590	103%

MassDOT Highway Division Capital Spending

Capital Spending Historical Overview For Highway Division – over last three years, the Highway Division has exceeded its investment targets to deliver a safe and reliable transportation system



FY19 Accomplishments for Highway Division - 103% of Plan

- 226 Project advertised with a combined estimated contract value of \$822,381,145, including 94.5% of the planned Federal Aid Program for 2019
- 196 Construction and Maintenance Contracts received notice to proceed in SFY 2019 with a combine contractual budget of \$1,219,455,595
- 563 active construction and maintenance contracts in 238 Massachusetts Communities
- Over 52,000 construction inspection reports filed by MassDOT District Construction Staff and documenting quality and safety on Highway Projects
- Area of pavement resurfacing performed in over 100 Massachusetts Communities equivalent to a two lane road from Provincetown to Pittsfield (approximately 257 miles)
- Performed work related to the replacement, repair or maintenance of 571 unique bridge structures in 162 communities throughout the Commonwealth
- Modernized Traffic signals for improved safety and traffic flow at 175 locations in 149 Communities

FY19 Municipal Partnerships/Local Aid

**CHAPTER 90
COMPLETE STREETS
MUNICIPAL BRIDGE**

FY19 MassDOT Capital Program Year End Spending Report

FY19 Local Aid Programs continued high levels of investment to support municipalities through the Chapter 90, Muni-Bridge, and Complete Streets Programs.

HIGHWAY PROGRAMS	FY19 CIP	ADDITIONAL CHAPTER 90 SUPPORT	FY19 ACTUAL
CHAPTER 90	200,000,000	40,000,000	211,372,588
COMPLETE STREETS	7,000,000		8,486,600
MUNICIPAL BRIDGE	5,000,000		5,563,069

Chapter 90 – FY19 Spend \$211,372,588

The Chapter 90 program was awarded additional investment from the supplemental budget, and hence exceeded its program target of \$200M while providing additional assistance to municipalities to invest in capital improvement projects related to transportation infrastructure.

Complete Streets – FY19 Spend \$8,486,600

Provides safe and accessible options for all modes of travel (bike, walk, transit)

- \$6.2 million awarded to 170 municipalities for technical assistance grants since 2016
- \$38.2 million awarded to 124 municipalities in construction grants since 2016.
- \$9.9 million in grants awarded in FY19

Municipal Bridge – FY19 Spend \$5,563,069

Provides assistance to replace or preservation of municipally owned small bridges

- \$43.2 million awarded to 93 applicants since FY17.
- 44 applications at \$20.6M under review

Chapter 90 Program

